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ABSTRACT

This annotated, sometimes critical, bibliography is directed to those wishing to acquire a background in the conservation and preservation of library and archive materials. The bibliography lists general works, technical works, disaster planning literature, other preservation bibliographies, automated preservation information sources, periodicals containing articles on preservation, and miscellaneous sources of information. An evaluation of the bibliographic situation in the field of preservation is included. (PM)

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A GUIDE TO THE LITERATURE ON DETERIORATION, CONSERVATION AND PRESERVATION OF LIBRARY MATERIAL

by

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In libraries and archives today, a common topic of professional conversation is bibliographic access to materials. Better bibliographic access is becoming a reality at both the local institution and at more general levels, e.g., state, regional, and national. Access to materials is becoming increasingly easy through local or network based computer catalogs. These catalogs, whether microform output or online, are providing better access by: clearing cataloging backlogs, providing better inter-institution access, and by speeding the processing time of new acquisitions. Librarians and others appear to believe that these computer catalogs, especially at the regional or national level, will allow their patrons to retrieve almost anything from anywhere. The problem with this scenario is that many of the items for which we have, or will have, bibliographic access will have ceased to exist in the near future.

Good evidence has existed for several years now (scientifically valid data versus anecdotal evidence) that records, such as books, manuscripts, reports, etc., which are printed on paper have an expected useful life span of about 50 years. It is known that this problem, usually termed the brittle books problem, has been increasing in scope since about 1870. In the United States this period coincides with the introduction of wood pulp paper and the heavy use of alum-rosin sizing. Both of these factors are known to increase the rate of deterioration of paper to a striking degree. During this same time span roughly 1870-1880 to date, much effort has been devoted to understanding the causes of paper deterioration. Recently, much effort has been directed by a few workers to the methods of producing permanent/durable paper (i.e., printing paper with an assured life span of 500-1000 years under normal conditions). A second major effort has been to develop treatments and methods to prevent further damage to already fragile material and to develop restoration techniques for severely damaged items.

Unfortunately, few workers have found financial support in this field and, therefore, there is no consistent, ongoing attack on this problem at the nation's universities or its great libraries. The result of this has been a piecemeal approach to the conservation and preservation of library materials. This in turn has led to a bewildering array of source documents. The lack of even one dominant journal in this area has led to the scattering of literature throughout a vast domain of periodical literature. One can estimate from published data that a comprehensive review of the conservation/preservation area (library materials only) would involve retrospective and current searches of at least 150 periodical titles. The published bibliographies in the area are more valuable for their help in pointing to printed sources than giving critical review to the literature.

The following brief annotated, and sometimes critical, bibliography is directed to those wishing to acquire a background in the conservation and preservation of library and archive materials. This includes the areas of: deterioriation of materials, conservation (or prevention of deterioration), and preservation (or repair and restoration) of already damaged items. This bibliography suffers from the same defect that others in the field have--it is not directed at any one professional group. The reader will be advised, where possible, as to the level of the material but each reader will have to sample various items to find their own level. This variability in "level" is endemic to the literature of the area. One is either addressed as a

consulting biochemist or a borderline high school dropout. That this bibliography is incomplete goes without saying, that it is biased if such is the case is accidental. Caveat emptor.

An Annotated List of Readings in the Area of Deterioration, Conservation, and Preservation of Library Materials

General Works

Baker, John P. and Soroka, Marquerite. Library Conservation: Preservation in Perspective. Dowden, Hutchinson & Ross, Inc., Stroudsburg, Pennsylvania, 1978.

The authors state that they were trying to present articles which dealt with the philosophical and epistomological asects of conservation of research library materials. This undertaking is very difficult at best, as much of the conceptual work in this area lies hidden in articles addressed to specific problems or techniques. Although many of the individual selections (reprinted journal articles) are too specific for general background reading, the selections by E. E. Williams, C. Wessel, and W. J. Haas should be consulted.

Banks, Paul N. "Preservation of Library Materials." In: Kent, Allen, et al, editors, Encyclopedia of Library and Information Science, Volume 23. Marcel Dekker, Inc. New York, 1978.

Introductory material that gives the reader a basic course in the construction, destruction, and reconstruction of the typical bound book. Mr. Banks is an excellent guide to this material in that he has been both a conservator and conservation administrator. His experience as a teacher of coservation course shows in this lucid treatment.

Clapp, Verner W. "The Story of Permanent/Durable Book-Paper, 1115-1970." Restaurator, supplement number 3, 1972.

This is perhaps the most readable and enjoyable condensed history of paper, paper-making and paper deterioration there is. This article will bring the

reader up-to-date on the topic of permanent/durable record paper. Little has changed in the area in the intervening eight years since the publication of the late Verner Clapp's article. Required reading for those new to the field.

Cunha, George M. and Cunha, Dorothy G. Conservation of Library Materials: A Manual and Bibliography on the Care, Repair and Restoration of Library Materials. 2nd Edition, Vol. I. [Manual]. The Scarecrow Press, Inc., Metuchen, New Jersey, 1972.

This is perhaps the definitive work in the area of conservation and preservation of library materials. Although somewhat out of date by technical standards it is the starting point for any literature review retrospective of 1972 in almost any conservation area. The extensive bibliography, which will be noted later, is a must for all researchers or others in the field. For general information and historical background see Chapters I, II, III, and VI. Chapters VI and VII should also be consulted.

National Conservation Advisory Council Report of the Study Committee on Libraries and Archives: National Needs in Library and Archives Conservation. Washington, D.C., National Conservation Advisory Council, 1978.

The most recent review of the problems of deterioriation of library and archive collections. This is a very important work in that it identifies the serious lack of research and training in the area of conservation/ preservation of library and archive resources. Written by a committee of the most active and knowledgeable experts in the field today. Readers are encouraged also to review the Council's report entitled Conservation of Cultural Property in the United States, NCAC, 1976.

Swartzburg, Susan G. Preserving Library Materials: A Manual. The Scarecrow Press, Inc., Metuchen, New Jersey, 1980.

Chapters 1 through 4 parallel those chapters noted in Cunha & Cunha above. This work is directed at a somewhat less sophisticated audience but nevertheless has the advantage of a further eight years (1972-1980) of reports and articles in this field.

Technical Information

American Association for State and Local History. Technical Leaflet Series. Appears as reprints from the association at 1315 Eighth Avenue, South, Nashville, Tennessee, 37203. Series also appears as insert in: History News.

Informative series of technical leaflets aimed at curators of library, archive and museum collections. Plainly written in non-technical language by experts in the field. Each leaflet contains bibliography for further readings, brief biography of the author and order data.

Barrow, W. J. Research Laboratory Series: Permanence/Durability of the Book I-VII, 1963-1974. W. J. Barrow Research Laboratory, Richmond, Virginia.

Chronicals a decade of experimental studies dedicated to the examination of deteriorating book paper and the development of permanent/durable book paper. This series prepared with monies from the Council on Library Resources details many years of work on the properties of book papers which lead to their untimely destruction. The series is hampered in interpretation by its lack of statistical evaluation, lack of generality across different book papers, and the lack of concise summaries or conclusions. The series develops qualitative labels for the usability of aging book papers based on quantitive measures but fails to apply these categories to the laboratory's own experimental data. This series is often

quoted or misquoted as a basis for estimating the extent of the brittle book problem. Recent experimental investigation indicates that this pioneering work of The Barrow Laboratory needs re-evaluation and refinement to make it more easily understood and relevant to current problems. Recommended as a classic in the field, but the reader should have a solid backgound in experimental design or research methodology for critical interpretation.

Cunha, George M., and Cunha, Dorothy G. Conservation of Library Materials: A Manual and Bibliography on the Care, Repair and Restoration of Library Materials. 2nd Edition. The Scarecrow Press, Inc., Metuchen, New Jersey, 1971. [Vol. 1: Manual]

The real classic in the field of conservation/preservation of library and archive collections. Chapters IV and V as well as the Appendices should be consulted on technical matters. The reader is warned, however, that specific treatments recommended may have changed over the eight years since publication. This manual, and others similar to it, should be used as basic information. No treatment recommended by this or any other manual should be undertaken without prior consultation with a trained conservator. Conservation measures such as control of humidity, temperature, light levels, etc. are, of course, exempt from the restriction noted above.

Eastman Kodak Company. Preservation of Photographs. Eastman Kodak Company, Rochester, New York, 1980.

The best available information on the topic from the company that should know. Very important as the authority on storage conditions for negatives and prints. This topic is becoming more important as the prints and negatives currently in archival collections are reaching deterioration age in ever increasing numbers.

Swartzburg, Susan G. Preserving Library Materials: A Manual. The Scarecrow Press, Inc., Metuchen, New Jersey, 1980.

A "manual" aimed at librarians and archivists rather than conservators or conservation technicians. Concentrates more on conservation (i.e., prevention of deterioration) than preservation (treatment of already damaged material). As with any manual, check any chemical or physical (e.g., plastic laminating) treatment with a conservator of known expertise before considering its use. A must reading however for anyone considering activity in the field of conservation administration.

Williams, John C. Preservation of Paper and Textiles of Historic and Artistic Value. American Chemical Society. Advances in Chemistry Series: 164. American Chemical Society, Washington, D.C., 1977.

This work is included as an example of the extremely technical end of the conservation/preservation field. Although some articles (e.g., numbers 2, 6, 7, 10, and 21) are of general interest, the others are highly technical and specific. The sponsorship of this program by the chemical industry has led to some unfortunate endorsements of modern materials for use in restoration of rare materials. These modern materials, especially plastic glues, are currently not recommended for archival use.

Disaster Planning

Disaster planning is one of the first and most inexpensive things that a library or archive can do to conserve and protect its collections. Disasters can be as small as power outages or as large as the flood in Florence, Italy in the mid-1960's. Each library and archive must tailor its disaster planning effort to its institutional needs and resources. Given this fact, it is obvious that no extant plan can cover every institution. What follows here, then, is a listing of source materials that should enable any library or archive to develop its own disaster plan.

Baker, John, P, and Soroka, Marguerite C. Library Conservation: Preservation in Perspective. Dowden, Hutchinson & Ross, Inc. Stroudsberg, Pennsylvania, 1978.

See Chapter 30, 31, 32.

Bohem, Hilda. Disaster Prevention and Disaster Preparedness. Office of the Assistant Vice President--Library Plans and Policies, University of California, Berkeley, California 1978.

Ms. Bohem's document is a basic planning guide for any library or archive which plans to establish its own disaster prevention program. The plan describes policies, personnel and supplies needed to prevent disasters or investigate the effects of unavoidable catastrophe. It is a vital document in that is contains an up-to-date (1980) listing of expert assistance for emergency consultation.

Cunha, George M., and Cunha, Dorothy G. Conservation of Library Materials: A Manual and Bibliography on the Care, Repair and Restoration of Library Materials. Vol 1 [Manual]. The Scarecrow Press, Inc., Metuchen, New Jersey, 1972.

See Chapter VI, "When Disaster Strikes."

Matthai, Robert A. (Editor). Protection of Cultural Properties During Energy Emergencies & Energy Conservation and Historic Preservation. Arts/Energy Study, Box 241, New York, New York, 10024.

See bibliographies (chapter and final), suggested readings, and list of free brochures.

Morris, John. Managing the Library Fire Risks. 2nd Edition. University of California, Berkeley, California. Office of Risk Management, 1979.

A must read for all library and archives curators. The best guide to fire intervention systems and their differences.

Waters, Peter. Procedures for Salvage of Water-damaged Library Materials. Library of Congress, Washington, D.C., 1975.

Reflects the experience of Mr. Waters with the aftermath of the Florence, Italy flood and more recent developments in drying techniques for water damaged library materials.

Swartzburg, Susan G. Preserving Library Materials: A Manual. The Scarecrow Press, Inc. Metuchen, New Jersey, 1980.

Another recent source for general information on pre-disaster planning. See Chapter 5: Planning for Disaster.

A Chronological List of Bibliographies on the Topics of Deterioration, Conservation and Preservation of Library and Archive Materials

Walton, Robert P. Causes and Prevention of Deterioration in Book Materials. The New York Public Library, New York, 1929.

Walton attempts to emphasize the threat to the collections of libraries by presenting an exhaustive compendium of works directed toward checking the "extensive forces of disintegration now at work." The work is a chronological presentation of information taken chiefly from periodicals published 1988-1927. Excellent for coverage of the early work done mostly in Germany. Each entry must be assessed as there is an author index only. Abstracts are given for most articles.

Kantrowitz, Morris S.; Spencer, Ernest W.; and Simmons, Robert H. Permanence and Durability of Paper: An Annotated Bibliography of the Technical Literature from 1885 A.D. to 1939 A.D. Technical Bulletin No.22. United States Government Printing Office, Washington, 1940.

Kantrowitz, et al, compiled 290 of 300 articles that they found in print from 1885 to 1938. These articles were considered those dealing with the deterioration of paper and methods to make paper more stable or permanent. The articles were assembled from more than 100 trade journals and magazines "edited in America and abroad." This bibliography supplements the Walton (1929) work by adding ten years of references; it also enhances the previous work by providing transliterated titles for the foreign materials. There is some overlap between the two bibliographies but this is a small number of the citations. The work is organized in reverse chronological order and contains both subject and author indexes. Abstracts of varying length are given with each article.

Byrne, Jerry and Weiner, Jack. Permanence. Bibliographic Series: Number 213. The Institute of Paper Chemistry, Appleton, Wisconsin, 1964.

The authors present an extensive bibliographic background for "manufacturer and user" on the permanence (retention of properties over extended periods) and durability (ability to fulfill its intended functions under intensive use) of papers. Materials are taken from the Abstract Bulletin of the Institute of Paper Chemistry through June 1963 and the Technical Association of the Pulp and Paper Industries (TAPPI) Bibliographies through 1961. 479 articles are cited and brief abstracts are presented in an abbreviated format. Key to the abbreviations used is presented. The work is presented as a single alphabetical, main entry listing. Author and title indexes are included. This bibliography, although retrospective to 1885, extends the Kantrowitz (1940) work through the quarter century 1938-1963.

Weiner, Jack, and Pollock, Vera. Permanence. Bibliographic Series: Number 213, Supplement I. The Institute of Paper Chemistry, Appleton, Wisconsin 1970.

This supplement to the 1964 bibliography of the same name adds 124 citations to the original bibliography. The Abstract Bulletin and TAPPI Bibliographies (noted above) were searched from July 1963 through December 1969 and 1962 through 1968, respectively. This bibliography contains some irrelevant items (as does the previous edition) but continues the trend of including more general articles on document storage, environmental consideration and aging of paper in libraries. Uses unique abbreviation system for abstracts which is noted at beginning of the bibliography. The supplement is indexed by both author and title.

Louden, Louise. Paper Conservation and Restoration. Bibliographic Series: Number 284. The Institute of Paper Chemistry, Appleton, Wisconsin, 1978.

This bibliography continues the work of the Institute of Paper Chemistry in providing bibliographies useful to the custodians of written documents. This number is, for the first time, "intended primarily for the librarian, archivist, and restorator." The aim of the author was to provide information on the storage, maintenance, repair, and restoration of papers. This bibliograhy is more general than the two noted directly above, overlaps somewhat with those, and eliminates many of the technical citations in the series number 213. Coverage is increased by the inclusion of citations from Library and Information Science Abstracts from 1969 through November 1977. The work present 377 articles with brief abstracts of conventional style. The bibliography is keyword indexed and has both an author index and patent index. The citations are alphabetically arranged. This bibliography extends and broadens the scope of the 1970 work noted above.

Morrow, Carolyn Clark and Schoenly, Steven B. A Conservation Bibliography for Librarians, Archivists, and Administrators. The Whitson Publishing Company, Troy, New York, 1979.

This work is a two part bibliography in the field of conservation of library and archival materials. Part I is a short, classified, descriptively annotated bibliography. This part of the bibliography breaks the material into five areas of concern: administration, environmental protection, content preservation, techniques, and general works. Part II is described as a comprehensive bibliography of "the literatures since 1966." The scope or nature of "the literature" is not described. Part I is arranged by section in reverse chronological order. Part II is an alphabetical listing of citations including those in Part I. See references are included in Part II. There is a subject index for Part II.

Automated Bibliographic Sources for Works on Deterioration, Conservation, and Preservation of Library and Archival Materials

Three data bases maintained by the Lockheed Corp., 3251 Hanover St., Palo Alto, California 94304, contain some citations relevant to this area. The three data bases are: ERIC (Education Research Information Clearinghouse), PAIS (Public Affairs Information Service), and PIRA (Paper and Board Abstracts, Printing Abstracts, Packaging Abstracts, and Management and Marketing Abstracts).

All are available on the Lockheed Dialog system. Index terms such as: deterioration (prevention of deterioration), conservation, and books, conservation of, are useful starting points for general searches.

An Annotated List of Periodicals Containing Works on the Deterioration, Conservation and Preservation of Library and Archival Material

Conservation Administration News: A Publication of Library & Archival Preservation. Box 3334, University Station, Laramie, Wyoming.
Edited by Robert Patterson of the University of Wyoming, this is the fastest growing source of information on recent publications, workshops, training, books, grants, etc. in the field. Soon to become the official organ of the Western Conservation Congress a large group of individuals with a common interest in conservation and preservation in institutions in some 20 western states.

The Paper Conservator: Journal of the UKG Paper Groups. The International Institute for Conservation of Historic and Artistic Works. P.O. Box 17, London, WC IN ZPE, United Kingdom.

Technical articles of interest to the established conservator and those who wish to keep abrest of current scientific work in the field.

Restaurator: International Journal for the Preservation of Library and Archival Material. Munksgaard International Publishers 35 Novre Sogude. DK-1370 Copenhagen K, Denmark.

A journal devoted to technical and general articles in the field. Often far in the arrears in publishing the articles in hand. Suffers from too few conservators being willing to spend the time to publish their observations. Should be supported more by the conservation/preservation community.

Miscellaneous Sources of Information on Deterioration, Conservation, and Preservation of Library and Archival Material

Library of Congress. Preservation Leaflets. Library of Congress, Washington, D.C., 1975.

Three officially published and eleven projected leaflets on preservation of library collections. Numbers after Leaflet 3 produced in draft not for citation. An example of what is needed and what is lacking in the area. Fund cutbacks have virtually eliminated the Library of Congress as the standard bearer in the area of conservation and preservation research and publishing.

Conservation Information Program. Office of Museum Programs. Smithsonian Institution, 2235 Arts and Industries Building, Washington, D.C. 20560

This is a source of slides and video tapes on museum conservation techniques. Some of these presentations are, however, of relevance to libraries and archives, e.g., those on paper V-81 (S-4)-(S-6) and S-12.

Swartzburg, Susan G. and White, Susan B. Preservation Education Flyer: Educational Opportunities in the Preservation of Library Materials, 1979. American Library Association. Preservation Committee, Resources and Technical Services Division, 1979.

A necessary source document on available conservation administration training. The authors seem less interested in where the conservators can go for training than where their prospective employers can learn the administrative language. Since the lack of training for conservators and conservation technicians is the pressing problem, this flyer only covers the easy half of the question.

An Evaluation of the Bibliographic Situation in the Field of Deterioration, Conservation, and Preservation of Library and Archives Materials

Bibliographic coverage in the areas of deterioration, conservation and preservation of library materials is poor at best. The major bibliography, by the Cunha's (Conservation of Library Materials, Vol 2. The Scarecrow Press, Metuchen, New Jersey, 1971), contains over 4,000 entries. Unfortunately, it is poorly organized and many citations (perhaps as many as one-third) are incorrect or incomplete. Other bibliographies are better organized but lack any critical annotation. The fields noted above are changing so often, and rapidly, that critical annotation is absolutely necessary to avoid the application of outmoded techniques to rare or valuable material. Another problem is the timely provision of current information on techniques, supplies and conservation centers and experts. This information is now being provided by newsletters such as: the Abbey Newsletter, Conservation Administration Newsletter (CAN), and others. It was hoped that national funding agencies could be impressed with the need of a timely, computer based, bibliography for the above areas in calendar year 1980. Preliminary talks with such agencies and foundations by several groups indicated that this hope will not be soon realized. The University of California will continue to develop a local bibliographic tool in this area as time and funds permit. Work along these lines is continuing at the Society of American Archivists and within the American Library Association Preservation Committee.